

REMARKS

This application has been carefully reviewed in light of the Office Action dated December 15, 2003. Claims 1 to 20 remain in the application, of which Claims 1, 6, 11 and 16 are independent. Reconsideration and further examination are respectfully requested.

The title was objected to and the objection is traversed. A new title was provided for in the Amendment dated September 19, 2003. The title (as amended therein) is clearly indicative of the presently claimed invention. Accordingly, withdrawal of the objection to the title is respectfully requested.

Claims 1 to 20 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,320,667 (Mitsubishi) in view of U.S. Patent No. 6,552,813 (Yacoub). Reconsideration and withdrawal of the rejections are respectfully requested.

The present invention concerns an information processing apparatus that is connected to a plurality of printers through a network, has a plurality of printer drivers and a virtual printer driver, selects a specific printer from among the plurality of printers, and transmits print data to the selected printer. According to the invention, print conditions of a print job are set via a user interface of the virtual printer driver. Intermediate print data is generated by receiving a drawing function formed by a graphic engine of an operating system on the basis of a draw command from an application program, where the generated intermediate print data has a format independent of a printer to which the intermediate print data is to be output. The set print conditions are obtained to print the print job of the generated intermediate print data, and the obtained print conditions are transmitted as printer search conditions to a search server. Then, a printer to which the intermediate print data should be output is selected on the basis of device designation information obtained

from the search server in accordance with the printer search conditions. Finally, a printer driver is selected corresponding to the selected printer and the intermediate print data is output to the graphic engine of the operating system so as to transfer the drawing function to the selected printer driver.

Referring specifically to the claims, amended independent Claim 1 is an information processing apparatus which is connected to a plurality of printers through a network, which has a plurality of printer drivers and a virtual printer driver, which selects a specific printer from among the plurality of printers, and which transmits print data to the selected printer, comprising setting means for setting print conditions of a print job via a user interface of the virtual printer driver, intermediate print data generating means for receiving a drawing function formed by a graphic engine of an operating system on the basis of a draw command from an application program, and generating intermediate print data on the basis of the drawing function, the intermediate print data having a format independent of a printer to which the intermediate print data is to be output, print condition obtaining means for obtaining print conditions set by the setting means to print the print job of the intermediate print data generated by the intermediate print data generating means, search condition transmitting means for transmitting the print conditions obtained by the print condition obtaining means as printer search conditions to a search server, selecting means for selecting a printer to which the intermediate print data should be output on the basis of device designation information obtained from the search server in accordance with the printer search conditions, and intermediate print data output means for selecting a printer driver corresponding to the printer selected by the selecting means and outputting the intermediate print data to the graphic engine of the operating system so as to transfer the drawing function to the selected printer driver.

Amended independent Claims 6, 11 and 16 are method, computer storage medium and program claims, respectively, that substantially correspond to Claim 1.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 1, 6, 11 and 16. More specifically, the applied art is not seen to disclose or to suggest at least the feature of intermediate print data generating intermediate print data having a format independent of a printer to which the intermediate print data is to be output, transmitting obtained print conditions as printer search conditions to a search server, selecting a printer to which the intermediate print data should be output on the basis of device designation information obtained from the search server, and selecting a printer driver corresponding to the selected printer and outputting the intermediate print data to a graphic engine of an operating system so as to transfer a drawing function to the selected printer driver.

Mitsubishi merely discloses a host computer 200 in which a printer driver 203 receives output control information from an application software 201 via a GDI 202 and generates PDL (page description language) codes from the output control information. An adaptive printing processor 206 converts the PDL codes generated by the printer driver 203 into optimum PDL codes taking into consideration device information from a printer 100, such as sheet-feed direction. However, there is no need to search for or to select a printer from among a plurality of printers, or to select a printer driver corresponding to the selected printer from among a plurality of printer drivers stored in the apparatus. Thus, Mitsubishi is not seen to disclose or to suggest the features of the present invention.


Yacoub is merely seen to select a printer to which data is to be output from a data source (virtual printer). The virtual printer 610, however, receives a print job which has already been generated by the user and selects the printer. On the other hand, the

information processing apparatus of the present invention generates intermediate print data that has a format independent of a printer to which the intermediate print data is to be output, selects one printer from among a plurality of printers, selects a printer driver corresponding to the selected printer, and outputs the intermediate print data to a graphic engine of the operating system so as to transfer a drawing function to the selected printer driver, whereby the data is rendered into a format specific to the selected printer. Yacoub is not seen to disclose or to suggest at least the foregoing feature.

In view of the foregoing amendments and remarks, independent Claims 1, 6, 11 and 16, as well as the claims dependent therefrom, are believed to be allowable over the applied art. Accordingly, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


Attorney for Applicant
Registration No. 42,746

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-2200
Facsimile: (212) 218-2200

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